UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,372	05/31/2001	Shinobu Sato	14672	1758

23389	7590	07/15/2004

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EXAMINER
LU, TOM Y

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/871,372	SATO, SHINOBU
	Examiner	Art Unit
	Tom Y Lu	2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☒ Claim(s) *1-10* is/are allowed.
6)☒ Claim(s) *11 and 23* is/are rejected.
7)☒ Claim(s) *1 and 11-22* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *31 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All   b)☐ Some * c)☐ None of:
    1.☒ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 1 is objected to because of the following informalities: no "and" is needed at line

4; "either data of said first data and said third data" should be changed to "either said first data or

third data" at line 5; "number of NA of times" should be changed to "a number of NA of times"

at line 6; "a proportion" should be changed to "the proportion" at line 8. Appropriate correction

is required.

2.   Claim 11 is objected to because of the following informalities: "either data of the first

data and third data" should be changed to "either said first data or third data" at line 5; "number

NA of times" should be changed to "a number NA of times" at line 6. Appropriate correction is

required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 11 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Rhoads et

al (U.S. Patent No. 6,229,924 B1).

    a. Referring to Claim 11, Rhoads discloses an insertion circuit which inserts the

        second data into the first data at a predetermined insertion degree so as to create

        third data (Rhoads discloses embedding a watermark mentioned at column 4, line

55, onto an image to create a watermarked image. The watermark is the claimed "second data"; the image is the claimed "first data"; the watermarked image is the claimed "third data". The predetermined insertion degree can for example be "the amount of positive changes less the amount of negative changes made since the beginning of the bit stream is tracked", column 5, lines 42-44); a selection circuit which selects either data of the first data or the third data (Rhoads at column 5, lines 40-48, teaches the system maintains a cumulative count of the amount that the coefficients have been changed to any point in time, which the system tracks both the unchanged coefficients and the changed coefficients to maintain a constant bit rate as mentioned at column 5, lines 26-27. Tracking unchanged coefficients is the claimed "selecting first data"; tracking changed coefficients is the claimed "selecting third data"); a counter which counts number NA times selection is made in said selection circuit and number N3 of times the third data is selected (Rhoads teaches counting the changed coefficients as well as the unchanged coefficients. Note the unchanged coefficients must be counted because the system needs to add the bit stream of the unchanged coefficients and the changed coefficients together to acquire the overall bit rate of the watermarked image and check to see if the change in the bit rate is constant or at least tolerated by the system, column 5, lines 59-60); and an adjustment circuit which adjusts the insertion degree, based on the numbers counted by said counter (Rhoads at column 5, lines 40-56, teaches adjusting the insertion degree by stopping positive

changes or negative changes if either of the changes exceed a pre-established

limit).

b. Referring to Claim 23, Rhoads discloses comparing the data length of the third

data and the data length of the first data; selecting the third data in a case where

the data length of the third data coincides with the data length of the first data; and

selects the first data in a case where the data length of the third data does not

coincide with the data length of the first data (Rhoads teaches comparing the bit

rate of the original image and the watermarked image to check if the bit rate

remains constant after embedding, column 5, line 26, and both changed and

unchanged coefficients are tracked and counted to determined if the bit rate is

constant as explained in Claim 11. The unchanged coefficients correspond to the

claimed "data length of the third data coincides with the data length of the first

data"; the changed coefficients correspond to the claimed "data length of the third

data does not coincide with the data length of the first data").

Allowable Subject Matter

4. Claims 1-10 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

a. Independent Claim 1 defines features of comparing a predetermined threshold

value with a proportion N3/NA of the number N3 to the number NA; and

changing an insertion degree at which the second data is inserted into the first

data, by increasing the insertion, in a case where the proportion N3/NA is smaller

than the threshold value. These features in combination with other features in

Claim 1, which is the broadest allowable claim, are not taught or suggested by the art of record.

b. Claims 2-10 are dependent upon Claim 1.

5. Claim 12-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

a. Claim 12 includes same allowable features indicated in Claim 1.

b. Claims 13-20 are dependent upon Claim 12.

c. Claim 21 defines an adder which adds fourth data obtained by multiplying the second data by the insertion degree, to the output Level, so as to create fifth data; and a variable-length coder device for coding the fifth data and the output RUN, so as to create variable-length coded third data.

d. Claim 22 is dependent upon Claim 21.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Shur et al, U.S. Patent No. 6,330,672 B1, see figure 1B, column 9, lines 15-20.

b. Oami et al, U.S. Patent No. 6,415,041 B1, see columns 3 and 7.
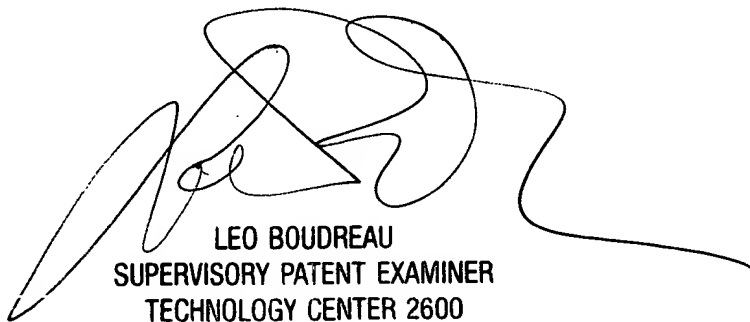
c. Sugaya et al, U.S. Patent No. 6,111,990, see column 7.

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y Lu whose telephone number is (703) 306-4057. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on (703) 305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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